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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,449	08/01/2006	Payne Kilbourn	SOLAR I	9828
<div>7590 12/19/2007</div> <div>John H Thomas 536 Granite Avenue Richmond, VA 23226</div> <div>EXAMINER SOTELO, JESUS D</div> <div>ART UNIT PAPER NUMBER</div> <div>3617</div> <div>MAIL DATE DELIVERY MODE</div> <div>12/19/2007 PAPER</div>				

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,449

Applicant(s)

KILBOURN ET AL.

Examiner

Jesús D. Sotelo

Art Unit

3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

1. Claims 1-16 are in the application.

Drawings

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because figures 1-3 are not sufficiently clear for scanning. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, last line, the alternative language makes this claim indefinite. The different alternatives included makes it difficult to establish the metes and bounds of the claim.

In claims 7-10, inclusive, the alternative language makes these claims indefinite.

In claim 11, the limitation "may include" makes this claim indefinite for the elements listed after "including:" are not positively included.

In claim 12, the alternative language makes this claim indefinite.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 7, 13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ives et al (FR 2,825,082).

Ives et al disclose an unmanned ocean vehicle including an enclosed hull, hybrid propulsion system and a plurality of sensors and a communication system. The vehicle includes batteries as in claim 7. The vehicle is described as being capable of remote control which would indicate the use of antennae and radio communication, As in claim 13. The system of Yves includes hybrid energy propulsion system as in claim 16.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4, 10-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikuo et al (EP 903,288) in view of Yves et al (CA 285,082).

Ikuo et al discloses an unmanned ocean vehicle generally as claimed, except for the specific use of hybrid propulsion means. Ives et al teaches the use of hybrid propulsion means on a vehicle similar to that of Ikuo et al. The use of a hybrid propulsion system generally as taught by Ives et al would have been desirable to insure the ability to have power at all times.

9. Claims 1, 3, 7-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motsenbocker et al (6,273,015).

Motsenbocker et al discloses an ocean vehicle for operating either on or below the surface of a body of water and including an enclosed hull having a payload bay 20; a hybrid propulsion system having energy collection means (figures 8 and 9) and energy storage means 80. The provision of the vessel of Motsenbocker et al with sensor means in the form of radar or sonar and communication means in the form of a radio system would have been obvious matters of design choice and in common use in the these type of vessels. It is noted that the term "unmanned" is not specific of any type of vehicle. In its broadest interpretation it merely means that at some time the vessel is unmanned.

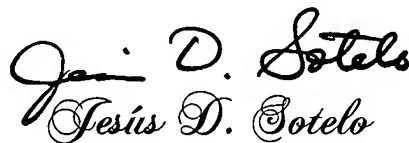
Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cardoza et al (6,854,406) discloses an unmanned ocean vehicle.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jesús D. Sotelo whose telephone number is 571-272-6686. The examiner can normally be reached on Mon. – Fri. 6:00 AM – 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Samuel J. Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jesús D. Sotelo

Primary Examiner
Art unit 3617
KNX 03D69 ☺

jds
December 15, 2007